

Table 5-2
Summary Statistics for Dioxin and Furan Concentrations in Subsurface Soil Samples from the TxDOT Right-of-Way and North of I-10

Analyte	Units	Number of Samples	Number of Detected Measurements	Detection Frequency	Detected Data		All Data
					Minimum	Maximum	Mean
Area 1							
2,3,7,8-TCDD	ng/kg	39	19	49%	0.268	144	5.18
1,2,3,7,8-PeCDD	ng/kg	39	17	44%	0.139	2.58	0.331
1,2,3,4,7,8-HxCDD	ng/kg	39	21	54%	0.118	3.11	0.529
1,2,3,6,7,8-HxCDD	ng/kg	39	31	79%	0.179	18.2	2.79
1,2,3,7,8,9-HxCDD	ng/kg	39	26	67%	0.291	8.34	1.86
1,2,3,4,6,7,8-HpCDD	ng/kg	39	39	100%	1.33	1,080	114
OCDD	ng/kg	39	39	100%	32.5	30,700	4,500
2,3,7,8-TCDF	ng/kg	39	32	82%	0.306	459	18.6
1,2,3,7,8-PeCDF	ng/kg	39	17	44%	0.154	10.8	0.862
2,3,4,7,8-PeCDF	ng/kg	39	20	51%	0.264	7.44	0.853
1,2,3,4,7,8-HxCDF	ng/kg	39	29	74%	0.188	21.5	2.63
1,2,3,6,7,8-HxCDF	ng/kg	39	26	67%	0.108	8.25	1.01
1,2,3,7,8,9-HxCDF	ng/kg	39	4	10%	0.0711	0.522	0.0981
2,3,4,6,7,8-HxCDF	ng/kg	39	23	59%	0.0707	6.69	0.864
1,2,3,4,6,7,8-HpCDF	ng/kg	39	36	92%	0.118	129	13.4
1,2,3,4,7,8,9-HpCDF	ng/kg	39	21	54%	0.201	12.9	1.33
OCDF	ng/kg	39	35	90%	0.229	777	73.2
TEQ _{DF,M}	ng/kg	39	39	100%	0.357	195	11.3
Area 2							
2,3,7,8-TCDD	ng/kg	2	1	50%	0.547	0.547	0.304
1,2,3,7,8-PeCDD	ng/kg	2	1	50%	0.152	0.152	0.105
1,2,3,4,7,8-HxCDD	ng/kg	2	1	50%	0.198	0.198	0.150
1,2,3,6,7,8-HxCDD	ng/kg	2	2	100%	0.185	0.476	0.331
1,2,3,7,8,9-HxCDD	ng/kg	2	1	50%	0.387	0.387	0.279
1,2,3,4,6,7,8-HpCDD	ng/kg	2	2	100%	6.82	18.6	12.7
OCDD	ng/kg	2	2	100%	247	484	366
2,3,7,8-TCDF	ng/kg	2	1	50%	1.74	1.74	0.876

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					Minimum	Maximum	Mean
1,2,3,7,8-PeCDF	ng/kg	2	0	0%	NA	NA	0.0282
2,3,4,7,8-PeCDF	ng/kg	2	0	0%	NA	NA	0.0297
1,2,3,4,7,8-HxCDF	ng/kg	2	0	0%	NA	NA	0.0307
1,2,3,6,7,8-HxCDF	ng/kg	2	0	0%	NA	NA	0.0268
1,2,3,7,8,9-HxCDF	ng/kg	2	0	0%	NA	NA	0.0271
2,3,4,6,7,8-HxCDF	ng/kg	2	0	0%	NA	NA	0.0215
1,2,3,4,6,7,8-HpCDF	ng/kg	2	0	0%	NA	NA	0.104
1,2,3,4,7,8,9-HpCDF	ng/kg	2	0	0%	NA	NA	0.0271
OCDF	ng/kg	2	1	50%	2.83	2.83	1.42
TEQ _{DF,M}	ng/kg	2	2	100%	0.441	1.22	0.831
Area 3							
2,3,7,8-TCDD	ng/kg	9	9	100%	3.32	11,300	4,560
1,2,3,7,8-PeCDD	ng/kg	9	8	89%	0.781	85.5	39.2
1,2,3,4,7,8-HxCDD	ng/kg	9	4	44%	0.657	1.15	0.504
1,2,3,6,7,8-HxCDD	ng/kg	9	7	78%	0.333	12.9	3.71
1,2,3,7,8,9-HxCDD	ng/kg	9	6	67%	0.321	3.49	1.66
1,2,3,4,6,7,8-HpCDD	ng/kg	9	9	100%	5.41	475	111
OCDD	ng/kg	9	9	100%	202	4,310	1,400
2,3,7,8-TCDF	ng/kg	9	9	100%	15.6	43,000	17,000
1,2,3,7,8-PeCDF	ng/kg	9	9	100%	0.544	1,450	642
2,3,4,7,8-PeCDF	ng/kg	9	8	89%	5.00	735	349
1,2,3,4,7,8-HxCDF	ng/kg	9	8	89%	12.6	3,060	1090
1,2,3,6,7,8-HxCDF	ng/kg	9	9	100%	0.256	691	256
1,2,3,7,8,9-HxCDF	ng/kg	9	7	78%	0.296	43.2	13.9
2,3,4,6,7,8-HxCDF	ng/kg	9	7	78%	2.71	92.7	41.6
1,2,3,4,6,7,8-HpCDF	ng/kg	9	9	100%	0.737	782	305

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					Minimum	Maximum	Mean
1,2,3,4,7,8,9-HpCDF	ng/kg	9	8	89%	1.10	296	112
OCDF	ng/kg	9	9	100%	1.43	412	184
TEQ _{DF,M}	ng/kg	9	9	100%	5.21	16,200	6,560

Notes

Mean calculations include detected and nondetected values. Nondetected values were set to one-half the detection limit.

Subsurface is defined as any sample with an upper depth greater than 0 feet.

NA = not applicable, no detected values

TEQ_{DF,M} (ND=1/2DL) = Toxicity equivalent for 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (TCDD) calculated

TxDOT = Texas Department of Transportation